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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/474,801	12/29/1999	KAORU ADACHI	378-366P	2763

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

ABDULSELAM, ABBAS L

ART UNIT PAPER NUMBER

2674

DATE MAILED: 04/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/474,801

Applicant(s)
Kaoru ADACHI

Examiner
Abbas Abdulsalam

Group Art Unit
2674



☒ Responsive to communication(s) filed on Jan 31, 2002

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-11 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-11 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2674

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 01/31/02 have been fully considered but they are not persuasive.

Applicant argues that Itoh et al. (USPN 5585817) does not disclose generating a parallel column by column output from the image section. Applicant also argues that Itoh does not disclose a display section which applies output signals in parallel. However, as will be shown in the rejection below, Itoh teaches the division of a photo detective portion (109) into multiple blocks. Itoh teaches outputs V(out 1), V(out 2) for blocks 109' and 109" respectively. Itoh further teaches parallel scanning block by block as well as an image input which can be performed by a single scanning circuit. In addition Itoh teaches that an image input section and an image display section are constructed into a unit. Itoh illustrates in detail the scanning method during image inputting process as shown in Fig 4. See Fig 5, col. 6, lines 9-25 and col. 3, lines 15-19, 57-59.

Claim Rejections 35 U.S.C. 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2674

Claims 1, and 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al.(USPN 5585817)

Regarding claims 1 and 4, Itoh teaches an image input/output apparatus including an image input section (20), and an image display section (10) arranged in a matrix form. The input section includes a photo detective portion (109) which receives light and convert it into an electrical signal. See column 4, lines 9-12, 39-42, and Fig 1. Itoh teaches the photo detective portion with respect to parallel blocks, 109', and 109'' and output voltage V(out1) , and V(out2). See column 6, lines 17-24 and Fig 5. Moreover, Itoh teaches the V(out) as it relates to the display section including a transparent electrode (105) , a thin film transistor (101), and gate electrodes. See Fig 2. Itoh also teaches the scanning method in connection to inputting process, and further teaches an image input section and an image display section as a single unit. See col. 3, lines 15-20, and Fig 4. However, Itoh does not specifically teach supplying driving pulses line by line in a predetermined order. On the other hand, Itoh does teach the supplying of electric signal to a scanning circuit. See column 1, lines 52-55.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize Itoh's scanning circuit. One would have been motivated in view of the suggestion in Itoh that the scanning circuit is a functional equivalent to driving pulses line by line in a predetermined order.

Regarding claims 3 and 6, Itoh teaches about LCD. See column 4, lines 10-12

Art Unit: 2674

Regarding claim 4, it has been described above. In addition, Itoh teaches a semiconductor layer (114) for photo-electric converting means. See column 4, lines 42-44, and

Claims 2 and 5-11 are rejected under 35 U.S.C. 103 as being unpatentable over Itoh in view of Sasaki (USPN 5140440).

Regarding claims 8 and 10, Itoh has been described above. However, Itoh does not teach about a parallel-to-serial, and serial to parallel conversions. Sasaki on the other hand teaches about serial-to-parallel conversion sections (116, 118), and parallel-to-serial conversion sections (120, 122). See Fig 18.

Therefore it would have been obvious to one having skill in the art at the time the inventions was made to modify Itoh's input/output apparatus to incorporate a parallel-to-serial and serial-to-parallel sections. One would have been motivated in view of the suggestion in Sasaki that the serial-to-parallel ; and parallel-to-serial conversions sections are equivalent to the desired serial-to-parallel ; and parallel-to-serial conversion means respectively. The use of conversion sections for both parallel and serial configurations help function an image forming apparatus as taught by Sasaki.

Regarding claims 7 and 11, it has been discussed above.

Regarding claims 2, 5 and 9, Sasaki teaches about image information with respect to charge coupled device. See Fig 2.

Art Unit: 2674

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2674

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

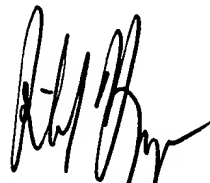
Washington, D.C. 20231

or faxed to :

(703) 872-9314

Hand-delivered responses should be brought to Crystal park II, crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 Customer Service Office whose telephone number is (703) 306-0377.



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Abbas Abdulsalam

Examiner

Art Unit 2674